

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions of claims in this application.

Please cancel claims 10-15, without prejudice or disclaimer, as follows:

1. (Canceled).
2. (Original) An etching method for plasma-etching an SiO<sub>2</sub> film layer covering an SiN<sub>x</sub> film layer formed at a workpiece placed inside an air-tight processing chamber by raising to plasma a processing gas induced into said processing chamber, comprising
  - a first step in which said SiO<sub>2</sub> film layer is etched by using a mixed gas containing at least C<sub>4</sub>F<sub>8</sub> and CO as said processing gas; and
  - a second step in which a switch is made to a mixed gas containing at least C<sub>4</sub>F<sub>8</sub> and CH<sub>2</sub>F<sub>2</sub> to be used as said processing gas to etch said SiO<sub>2</sub> film layer immediately before said SiN<sub>x</sub> film layer becomes exposed.
3. (Original) An etching method for plasma-etching an SiO<sub>2</sub> film layer covering an SiN<sub>x</sub> film layer formed at a workpiece placed inside an air-tight processing chamber by raising to plasma a processing gas induced into said processing chamber, comprising
  - a first step in which said SiO<sub>2</sub> film layer is etched by using a mixed gas containing at least C<sub>4</sub>F<sub>8</sub> and CO as said processing gas; and
  - a second step in which a switch is made to a mixed gas containing at least C<sub>4</sub>F<sub>8</sub> and CH<sub>2</sub>F<sub>2</sub> to be used as said processing gas to etch said SiO<sub>2</sub> film layer immediately after said SiN<sub>x</sub> film layer becomes exposed.

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4. (Previously Presented) An etching method according to claim 2 or 3, wherein the flow rate ratio ( $\text{CH}_2\text{F}_2 / \text{C}_4\text{F}_8$ ) of  $\text{C}_4\text{F}_8$  and  $\text{CH}_2\text{F}_2$  in said mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CH}_2\text{F}_2$  is set essentially within a range of  $0.4 \sim 1.0$ .
5. (Previously Presented) An etching method according to claim 2 or 3, wherein the partial pressure corresponding to  $\text{C}_4\text{F}_8$  relative to the entire pressure of said mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CH}_2\text{F}_2$  is set essentially within a range of  $0.4 \text{ (mTorr)} \sim 0.8 \text{ (mTorr)}$ .
6. (Previously Presented) An etching method according to claim 2 or 3, wherein the density of plasma excited inside said processing chamber is set essentially within a range of  $1.5 \times 10^{10} \text{ (number of ions / cm}^3\text{)} \sim 1.2 \times 10^{11} \text{ (number of ions / cm}^3\text{)}$ .
7. (Previously Presented) An etching method according to claim 2 or 3, wherein:  
said workpiece is placed on a mounting surface of a susceptor provided inside said processing chamber; and  
the temperature of said susceptor is set essentially within a range of  $20 \text{ }^\circ\text{C}$   
 $\sim$  the heat resistance temperature of a photoresist layer constituting a mask pattern for said  $\text{SiO}_2$  film layer.

8. (Previously Presented) An etching method according to claim 2 or 3, wherein said mixed gas containing at least  $\text{C}_4\text{F}_8$  and  $\text{CH}_2\text{F}_2$  further contains an inert gas.

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9. (Original) An etching method according to claim 2 or 3, wherein said mixed gas containing at least C<sub>4</sub>F<sub>8</sub> and CO further contains an inert gas.

10-15. (Canceled).

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